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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,828	10/24/2003	Daniel James Dickinson	TE9A	9259
7590 02/09/2006				
EUSTATHIOS VASSILIOU		EXAMINER		
TERMAX CORPORATION		RODRIGUEZ, RUTH C		
920 REMINGTON AVE.		ART UNIT		
SCHAUMBURG, IL 60173		PAPER NUMBER		
		3677		

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/692,828	Applicant(s) DICKINSON ET AL.	
	Examiner Ruth C. Rodriguez	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-14,16-18,20-26,28-34,36-48,50-62,64-74 and 77-100 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-6,11-13,16,17,20,21,23-25,28-32,38-46,52-60,66-74,79-82,85-88,91-94 and 97-100 is/are allowed.
- 6) ☒ Claim(s) 1,2,7-10,14,18,22,26,33,34,36,37,47,48,50,51,61,62,64,65,77,78,83,84,89,90,95 and 96 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

There are two new claims 94. The second claim 94 will be renumbered 95 and following claims will be renumbered from 95-99 to 96-100.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 7, 9, 10, 14, 26, 33, 36, 37, 47, 50, 51, 61, 64, 65, 77, 83, 89 and 95 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith (US 6,353,981 B1).

A spring fastener (10) comprises a first side (12) and a second side (14) opposite the first side (Figs. 1-25). The first side is connected to the second side thereby forming a U-shaped structure having a cavity between the first side and the second side (Figs. 1-25). A bottom portion (34) connects the first side and the second side and a top portion (38). The first side comprises first barbs (40) having first front ends and a first engagement spring (16). The first engagement spring connected to the first side in the vicinity of the bottom portion (Figs. 1-25). The second side comprises second barbs (40) having second front ends and a second engagement spring (18). The second engagement spring connected to the second side in the vicinity of the bottom portion (Figs. 1-25). Each of the first and second engagement springs has a free end (16a,18a) in the vicinity of the top portion and also comprises a peak (22,26) and a substantially flat engagement region with a hindrance portion (20,24,28,30) between the free end and the peak in the vicinity of the peak (Figs. 1-25). The hindrance portion comprises one structure selected from one to three ripples and each ripple has the form of a depression. The depression having a deepest part, a front side, a back side and a width (Figs. 1-25). The hindrance portion having a surface wherein the depth of each ripple is the distance between the surface of the hindrance and the deepest part of the respective ripple (Figs. 1-25). The ripple provides increased removal force when the fastener is pulled by an extension of a first part engaged to the first and second barbs after the fastener has been inserted into a slot of a second part (C. 4, L. 55-67, C. 5, L. 1-8 and Figs. 1-25). The slot has a slot width and edges on which edges a ripple of the hindrance portion is engaged thereby providing the increased removal force (C. 4, L.

43-54 and Fig. 6). The fastener can be extracted when pulled by the extension without damage to said fastener (C. 4, L. 55-67 and C. 5, L. 1-8).

Smith also discloses that:

- The hindrance portion comprises only one ripple (20).
- The ripple width is larger than the depth of the ripple (Figs. 1-25).
- The ripple width is at least twice the size of the depth of the ripple (Figs. 1-25).
- The back side has a slope in the range of 15 to 30 degrees with regard to the general plane of the hindrance portion (Figs. 1-25).
- The front side has a higher slope than the back side (Figs. 1-25).
- The barbs are selected from a group consisting essentially of: first barbs being outer barbs and second barbs being inner barbs where the first barbs are outside outer barbs and the second barbs are inside outer barbs and first barbs being inner barbs and the second barbs being inner barbs (Figs. 1-25).
- The engagement region is at least partially wider than the rest of the engagement spring (wider than the free end of the engagement spring as shown in Figs. 1-25).

Regarding claim 33, the same rejection of claim 1 applies to claim 33 that claims an assembly having a first part that comprises an extension and a spring fastener in accordance to claim 1 where the fastener can be extracted when pulled by the rib without damage to the fastener (C. 4, L. 55-67 and C. 5, L. 1-8).

For claim 47, the same rejection of claim 1 applies to claim 47 that claims an assembly having a second part with a slot and a spring fastener in accordance to claim 1 where the fastener can be inserted into the slot and extracted when pulled by an extension without damage to the fastener (C. 4, L. 55-67 and C. 5, L. 1-8).

Regarding claim 61, the same rejection of claim 1 applies to claim 61 that claims a vehicle comprising an assembly having a first part with an extension and a second part with a slot and a spring fastener in accordance to claim 1 where the fastener can be inserted into the slot and extracted when pulled by the rib without damage to the fastener (C. 4, L. 55-67 and C. 5, L. 1-8).

For claim 75, the same rejection of claim 1 applies to claim 75 that claims that the hindrance portion comprises one structure selected from ripple (20,24,28,30), side rib, upward solid bent extension parallel to the peak and the free end (20,24,28,30) and knurled region (20,24,28,30).

For claim 76, the same rejection of claim 61 applies to claim 75 that claims that the hindrance portion comprises one structure selected from ripple (20,24,28,30), side rib, upward solid bent extension parallel to the peak and the free end (20,24,28,30) and knurled region (20,24,28,30).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 8, 34, 48 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith.

Smith discloses a spring fastener with all the limitations listed above in paragraph 3 for the rejection of claims 1, 33, 47 and 61. Smith fails to disclose that the depth of the ripple is smaller than 0.2 mm. However, it would have been obvious matter of design choice to provide the bent teeth with a depth smaller than 0.2 mm, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237, (CCPA 1955).

Smith discloses a spring fastener with all the limitations listed above in paragraph 3 for the rejection of claim 1. Smith fails to disclose that the ripple width is in the range of 0.1 to 0.5 mm and the ripple depth is on the range of 0.01 to 0.1 mm. However, it would have been obvious matter of design choice to provide the ripple width is in the range of 0.1 to 0.5 mm and the ripple depth is on the range of 0.01 to 0.1 mm, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237, (CCPA 1955).

Smith discloses a spring fastener with all the limitations listed above in paragraph 3 for the rejection of claim 1. Smith fails to disclose that the fastener has a width in the vicinity of the top portion of the fastener which is at least 60 % as wide as the slot width.

However, it would have been obvious matter of design choice to provide the fastener with a width in the vicinity of the top portion of the fastener that is at least 60 % as wide as the slot width, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237, (CCPA 1955).

6. Claims 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Vassiliou (US 6,279,207 B1).

Smith discloses a spring fastener with all the limitations listed above in paragraph 3 for the rejection of claims 1 and 14 where at least one barb is cut from its respective side and flexible. Smith fails to disclose that at least one barb has a bent at its respective front end. However, Vassiliou teaches a spring fastener (10) comprises a first side (18) and a second side (20) opposite the first side (Figs. 1 and 8). The first side is connected to the second side thereby forming a U-shaped structure having a cavity (16) between the first side and the second side (Figs. 1 and 8). A bottom portion connects the first side and the second side and a top portion (26) (Figs. 1 and 8). The first side comprises first barbs (12) having first front ends and a first engagement spring (29). The first engagement spring connected to the first side in the vicinity of the bottom portion (Figs. 1 and 8). The second side comprises second barbs (14) having second front ends and a second engagement spring (31). The second engagement spring connected to the second side in the vicinity of the bottom portion (Figs. 1 and 8). Each of the first and second engagement springs has a free end (Figs. 1 and 8) in the vicinity of the top portion and also comprises a peak and an engagement region with a

hindrance portion (29i,31i) between the free end and the peak (Figs. 1-25). The hindrance portion comprises one structure selected from one to three ripples (29i,31i) and each ripple has the form of a depression. The depression having a deepest part, a front side, a back side and a width (Figs. 1 and 8). The hindrance portion having a surface wherein the depth of each ripple is the distance between the surface of the hindrance and the deepest part of the respective ripple (Figs. 1 and 8). The ripple provides increased removal force when the fastener is pulled by an extension of a first part engaged to the first and second barbs after the fastener has been inserted into a slot of a second part (C. 4, L. 1-12 and Fig. 8). The slot has a slot width and edges on which edges the engagement region is engaged (Figs. 7 and 8). At least one barb is cut from its respective side, flexible and bent at its respective front end (Figs. 1-8). The bent provides additional holding power between the spring and the objection being held within the spring (C. 3, L. 29-60). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the bent at its respective front end of the barb as taught by Vassiliou in the fastener disclosed by Smith. Doing so, increases the holding power between the spring and the object being held within the spring.

Vassiliou also teaches that the material from which the spring fastener was made from has a thickness and the front points of the outside barbs are at a distance from the second side smaller than the thickness of the material (Figs. 1-8).

7. Claims 78, 84, 90 and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Smith et al. (US 6,381,811 B2).

Smith discloses a spring fastener with all the limitations listed above in paragraph 3 for the rejection of claims 1, 33, 47 and 61 that further comprises an elastic body in the form of a gasket (52) extending away from the cavity in the vicinity of the top portion. Smith fails to disclose that the gasket has a lip. However, Smith et al. teaches a spring fastener (10) comprises a first side (14) and a second side (16) opposite the first side (Figs. 1-10). The first side is connected to the second side thereby forming a U-shaped structure having a cavity (30) between the first side and the second side (Figs. 1-10). A bottom portion (20) connects the first side and the second side and a top portion (18) (Figs. 1-10). The first side comprises first barbs (34) having first front ends and a first engagement spring (22). The first engagement spring connected to the first side in the vicinity of the bottom portion (Figs. 1-10). The second side comprises second barbs (34) having second front ends and a second engagement spring (22). The second engagement spring connected to the second side in the vicinity of the bottom portion (Figs. 1-10). Each of the first and second engagement springs has a free end (Figs. 1-10) in the vicinity of the top portion and also comprises a peak and an engagement region (Figs. 1-10). The gasket is a lip. The lip of the gasket improves the sealing performance of the fastener when inserted to a slot of a solid panel (C. 5, L. 1-28). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to provide a gasket having a lip as taught by Smith et al. for the spring fastener of Smith. Doing so, gasket improves the sealing performance of the fastener when inserted to a slot of a solid panel.

Allowable Subject Matter

8. Claim 4-6, 11-13, 16, 17, 20, 21, 23-25, 28-32, 38-46, 52-60, 66-74, 79-82, 85-88, 91-94 and 97-100 are allowed.

Response to Arguments

1. Applicant's arguments filed 16 November 2005 have been fully considered but they are not persuasive.
2. In response to Applicant's argument that Smith does not include certain features of the Applicant's invention, the limitations on which the Applicant relies (i.e., that Smith does not disclose a substantially flat engagement region with a hindrance portion comprising one to three regions
3. The Applicant argues that Smith's disclosure "shows at least one side with an engagement region 20' (from 22 to 20) to be flat lacking a hindrance portion of any kind, but having a "recess" 20, as well as an opposite wavy non-flat engagement region (from 26 to 18a) with two "peaks" 26 and 30, as well as two "recesses" 24 and 28." The Applicant also argues that this interpretation is in view of the Specifications. The Examiner fails to be persuaded since it is the claims that define the claimed invention, and it is claims, not specification that are anticipated or unpatentable. *Constant v. Advanced Micro-Device, Inc.* 7 USPQ2d 1064. Additionally, the claims in a pending application should be given their broadest reasonable interpretation. *In re Pearson*, 181

USPQ 641 (CCPA 1974). Furthermore, the interpretation of a prior art to reject a claim can utilize different terms as those used in the prior art especially when new concepts such as hindrance and ripples are being used to define an invention as long as the element meet the necessary limitations of the claim. In this instance, the claims fail to exclude the interpretation that the ripples can be considered to be the "optional recesses" as named by the Applicant. Until the Applicant provides more structural limitations in the claims that will prevent the broadest reasonable interpretation of the "optional recesses" as the ripples, claims 1, 7, 9, 10, 14, 26, 33, 36, 37, 47, 50, 51, 61, 64, 65, 77, 83, 89 and 94 remain rejected under 35 U.S.C. 102(e) as being anticipated by Smith.

4. Additionally, the Examiner fails to be persuaded that Smith lacks a substantially flat engagement region because the term "substantially" is a very broad term that encompasses other shapes as long as two points of the engagement region fall within a flat plane as disclosed by Smith. *In re Nehrenberg* (CCPA) 126 USPQ 383. Therefore the substantially flat engagement region can be extend from the top surface of the peak (22 or 26) and the free end (16A,18A) of the engagement spring and that the ripples are the depressions (20,24',28').

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Smith et al. (US 6,381,811 B2), Smith et al. (US 6,527,471 B2), Smith et al. (US 6,648,542 B2), Dickenson et al. (US 6,718,599 B2), Smith et al. (US 6,846,125 B2) and Dickenson et al. (US 6,868,588 B2) are cited to show state of the art with respect to spring fasteners having some of the features being claimed by the current application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth C. Rodriguez whose telephone number is (571) 272-7070. The examiner can normally be reached on M-F 07:15 - 15:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075.

Submissions of your responses by facsimile transmission are encouraged. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-6640.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ruth C. Rodriguez
Patent Examiner
Art Unit 3677

rcr
February 6, 2006


ROBERT J. SANDY
PRIMARY EXAMINER